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ABSTRACT

Findings of a 1989 national survey of the functional reading, writing, and numeracy skills of Canada's adult population are reported. The survey population was a representative sample of 9,500 individuals aged 16-69. Three questionnaires gathered information on socio-demographic and educational background, screened out individuals with very low literacy skills, and measured specific reading, writing, and numeracy skills. Detailed analysis of the results allowed assignment of a test score to each respondent in each of the three skill areas. Scores corresponded to four skill levels. The findings are reported in three separate reports, one for each skill area. The reports on reading and numeracy skills consists of an overview of the larger survey, highlights of the skill area findings, and tables showing the distribution of respondents at each of the skill levels. Distribution is shown according to geographic location, schooling attained, language used (French or English), native or immigrant status, gender, age, and income. The writing skills survey report is a summary of results, with an address given for more information. (MSE) (Adjunct ERIC Clearinghouse on Literacy Education)

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SURVEY OF LITERACY SKILLS USED IN DAILY ACTIVITIES

Reading Skills

SURVEY OVERVIEW

On behalf of the National Literacy Secretariat, in October 1989 Statistics Canada conducted a survey designed to assess directly the functional reading, writing and numeracy skills of Canada's adult population.

The Survey of Literacy Skills Used in Daily Activ-ities consisted of interviews administered to individuals in their homes and involved a series of tasks designed to test reading, writing and numeracy activities commonly encountered in daily life in Canada. The assessment of everyday literacy skills was restricted to Canada's official languages. A representative sample of approximately 9,500 persons aged 16 to 69 attempted some or all of the tasks designed to measure their literacy skills. The sample was pre-selected from respondents to the monthly Labour Force Survey. Residents of the Yukon and the Northwest Territories, members of the Armed Forces, persons living on Indian reserves and inmates of institutions were not included in the sample. These exclusions account for approximately 3% of the Canadian population.

The Survey of Literacy Skills Used in Daily Activities builds upon earlier research by the National Assessment of Educational Progress (NAEP) in the United States and on the Southam Literacy Study conducted in 1986. The Southam Literacy Study was the first Canadian direct measurement study focussed on the issue of the adult functional literacy problem in Canada. The Survey of Literacy Skills Used in Daily Activities is intended to provide more detailed information on the reading, writing and numeracy skill levels of Canadians using a substantially larger sample base than the previous study.

For the purpose of the survey, literacy was defined as:

- ✔ the information processing skills necessary to use the **printed material** commonly encountered at work, at home and in the community.

From this broad definition, skill levels were defined according to the abilities required to accomplish a variety of activities. For reading, the abilities ranged from locating a word or item in a document (for example, locating the expiry date on a driver's licence) to more complex abilities involving the integration of information from various parts of a document (for example, reading a chart to determine if an employee is eligible for a particular benefit).

The survey employed three questionnaires to profile the characteristics and the literacy skills of Canada's adult population:

- ✔ a set of "background" questions which gathered information on an individual's socio-demographic characteristics, on parental educational achievement as well as perceived literacy skills and needs;

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- ✔ a "screening" questionnaire, involving a small number of simple tasks, designed to identify individuals with very limited literacy abilities (those who had very low literacy abilities were not asked to respond to the next questionnaire);

- ✔ a "main" questionnaire, comprising the majority of the literacy test, aimed at measuring specific reading, writing and numeracy abilities.

The attached preliminary data highlight the reading skills of adult Canadians. Data on the writing and numeracy skills will be made available at the end of June 1990. A micro-data file allowing detailed analysis of socio-demographic characteristics with the assigned individual skill levels and scores for each task also will be available at that time. A full analysis of the survey data is scheduled for publication in September 1990.

The main "outcome" of the survey is a separate test score for each respondent for reading, writing and numeracy. To aid in the interpretation of these scores, respondents have been categorized into skill levels according to their performance on the test. In the case of reading, the levels are:

Level 1 – Canadians at this level have difficulty dealing with printed materials. They most likely identify themselves as people who cannot read;

Level 2 – Canadians at this level can use printed materials only for limited purposes such as finding a familiar word in a simple text. They would likely recognize themselves as having difficulties with common reading materials;

Level 3 – Canadians at this level can use reading materials in a variety of situations provided the material is simple, clearly laid out and the tasks involved are not too complex. While these people generally do not see themselves as having major reading difficulties, they tend to avoid situations requiring reading;

Level 4 – Canadians at this level meet most everyday reading demands. This is a large and diverse group which exhibits a wide range of reading skills.

For the purpose of this report, Canadians at levels 1 and 2 are described as having skills too limited to deal with everyday reading demands. Canadians at level 4 have reading skills sufficient to meet everyday requirements, while those at level 3 have a reading proficiency enabling them to handle reading demands within a more limited range.

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HIGHLIGHTS

- The majority (62%) of the Canadian adult population aged 16 to 69 have reading abilities sufficient to deal with most everyday reading requirements (level 4). Their skills are adequate to enable them to acquire further knowledge using written material (see table 1).

- The reading skills of 16% (2.9 million) of Canada's adults are too limited to allow them to deal with the majority of written material encountered in everyday life. This percentage includes individuals whose abilities are classified at levels 1 (5%) and 2 (9%) and persons who did not attempt the test because they reported having no abilities in English or French (2%).

- Of the 2% (320,000) of Canada's adult population reported having no skills in either of Canada's official languages, the great majority (3 out of 4) are women over 35 years of age and 71% of them live in Ontario.

- A further 22% (4.0 million) of Canadian adults can use reading materials to carry out simple reading tasks within familiar contexts with materials that are clearly laid out (level 3). However, this group does not have sufficient skills to cope with more complex reading contexts.

High school completion is key to everyday reading skills

- Sixty percent of Canadians with elementary schooling only or without any schooling whatsoever have very limited reading skills and have difficulty with written materials (levels 1 and 2). Only 12% of Canadians with that level of education can meet most everyday reading requirements (level 4) (see table 2).

- Sixteen percent of Canadians with some secondary schooling are at the lowest two levels while 48% have the skills necessary to deal with common reading requirements (level 4).

- Secondary school completion shows a strong relationship to everyday reading skills. Only 8% of Canadians with high school completion are at levels 1 and 2, while 70% have skills that permit them to meet daily demands (level 4).

- Few Canadians with post-secondary training have low levels of reading proficiency (levels 1 and 2). The great majority of Canadians who attended university (89% at level 4) or community college (81% at level 4) have reading skills sufficient to meet everyday situations. This percentage increases to 93% for university graduates with a Bachelors degree or above and to 84% for community college graduates with a diploma or certificate.

- The strong relationship between educational attainment and literacy proficiency is illustrated through a comparison of the performance of those who took the test in English and French. While there was no significant differences amongst the 16-24 year olds, because a higher percentage of the older Canadians who took the test in English completed high school, fewer adults who took the test in English were categorized at the two lowest reading skill levels (13% vs 18% — see table 3).

Almost 30% of adults born outside Canada have limited everyday reading skills in either English or French

- Differences in literacy performance levels between immigrants and Canadian born respondents (see table 4) can be attributed to a number of factors including level of education, mother tongue and familiarity with English or French.

- The more recent immigrants exhibited lower levels of English and French literacy proficency than those who had been in Canada longer. For those who had migrated to Canada during the past decade (1980-89), 40% have limited reading skills (levels 1 and 2) compared to 20% for the period 1970-79.

Reading skills of Canadians highest in West

- Eastern Canada shows the highest proportions of adults with low literacy skills (see table 1). Newfoundland, with almost a quarter of its adult population at levels 1 and 2 and 36% at level 3, registers the lowest estimated reading skill levels in Canada.

- Nova Scotia, New Brunswick and Quebec have similar reading skill profiles with between 15 and 20% of their adult population at levels 1 and 2 and close to 57% at level 4.

- Ontario and Manitoba results indicate that 62% and 65% of their adult population have level 4 reading skills while Saskatchewan, Alberta and British Columbia have the highest percentages at that level at 69% and above.

Men and women show the same reading abilities

- The everyday reading skill profiles for men and women are essentially the same (see table 5).

Higher everyday reading skills found among younger Canadians

- Close to three Canadians out of four aged 16-34 possess reading abilities sufficient to deal with most written material encountered daily (level 4). Among the 55-69 year old population the proportion is only one in three (see table 6).

- With regard to lower reading skill levels, only 6% of the youngest adults (16-24) are at levels 1 and 2 while among the 55-69 age group, these categories comprise 36%.

- Surprisingly, almost a quarter of the youngest adults (16-24) have abilities at level 3. This could be attributed, in part, to their lack of exposure to the variety of documents encountered everyday.

Higher income associated with higher reading skills

- In general, Canadians exhibiting greater reading abilities have a higher proportion of above average incomes. Fifty-four percent of the Canadians with no income or a reported income of less than $10,000 are at level 4 reading while this percentage jumps to 82% for those with incomes of $40,000 or higher (see table 7).

Table 1 – Percentage distribution of persons aged 16-69 by reading skill levels, Canada and provinces.

(Note: Persons who reported having no skills in either of Canada's official languages are included in Level 1)

	Population (thousands)	Reading Skills			
		Level 1	Level 2	Level 3	Level 4
Canada	**18,024**	**7%**	**9%**	**22%**	**62%**
Atlantic	1,546	6%	13%	30%	52%
Newfoundland	384	7%	17%	36%	39%
Prince Edward Island	85	(1)	(1)	(1)	(1)
Nova Scotia	594	5% (Q)	10%	28%	57%
New Brunswick	483	6%	12%	26%	56%
Quebec	4,721	6%	13%	25%	57%
Ontario	6,689	9%	8%	21%	62%
Prairies	2,984	4%	7%	19%	70%
Manitoba	703	5% (Q)	7% (Q)	23%	65%
Saskatchewan	632	3% (Q)	5% (Q)	19%	72%
Alberta	1,649	4%	7% (Q)	17%	71%
British Columbia	2,084	5%	7%	19%	69%

Source: *Survey of Literacy Skills Used in Daily Activities, Statistics Canada, 1989.*

Level 1 – Canadians at this level have difficulty dealing with printed materials. They most likely identify themselves as people who cannot read.

Level 2 – Canadians at this level can use printed materials only for limited purposes such as finding a familiar word in a simple text. They would likely recognize themselves as having difficulties with common reading materials.

Level 3 – Canadians at this level can use reading materials in a variety of situations provided the material is simple, clearly laid out and the tasks involved are not too complex. While these people generally do not see themselves as having major reading difficulties, they tend to avoid situations requiring reading.

Level 4 – Canadians at this level meet most everyday reading demands. This is a large and diverse group which exhibits a wide range of reading skills.

(1) The sampling variability associated with this estimate is too high for the estimate to be released.

(Q) Users are cautioned that the sampling variability associated with this estimate is high.

Table 2 – Percentage distribution of Canadian adults aged 16-69 by highest level of schooling showing reading skill level, Canada.

(Note: Excludes persons who reported having no skills in either of Canada's official languages)

	Population (thousands)	Reading Skills			
		Level 1	Level 2	Level 3	Level 4
Canada*	17,705	5%	10%	22%	63%
No schooling or elementary	1,818	27%	33%	28%	12% (Q)
Some secondary	4,427	3% (Q)	13%	35%	48%
Secondary completed	4,181	(1)	6% (Q)	22%	70%
Trade School	1,133	(1)	(1)	25% (Q)	63%
Community College	2,458	(1)	(1)	15% (Q)	81%
University	3,456	(1)	(1)	8% (Q)	89%

Source: Survey of Literacy Skills Used in Daily Activities, Statistics Canada, 1989.

Level 1 – Canadians at this level have difficulty dealing with printed materials. They most likely identify themselves as people who cannot read.

Level 2 – Canadians at this level can use printed materials only for limited purposes such as finding a familiar word in a simple text. They would likely recognize themselves as having difficulties with common reading materials.

Level 3 – Canadians at this level can use reading materials in a variety of situations provided the material is simple, clearly laid out and the tasks involved are not too complex. While these people generally do not see themselves as having major reading difficulties, they tend to avoid situations requiring reading.

Level 4 – Canadians at this level meet most everyday reading demands. This is a large and diverse group which exhibits a wide range of reading skills.

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* Total includes "Not Stated" level of schooling.

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Table 3 – Percentage distribution of Canadian adults aged 16-69 by reading skill levels showing the language used to complete the tasks, Canada.

(Note: Excludes persons who reported having no skills in either of Canada's official languages)

	Population (thousands)	Reading Skills			
		Level 1	Level 2	Level 3	Level 4
Canada total	**17,705**	**5%**	**10%**	**22%**	**63%**
English test	13,372	5%	8%	22%	65%
French test	4,333	4% (Q)	14%	25%	57%
Born in Canada	**14,522**	**3%**	**9%**	**22%**	**66%**
English test	10,438	2% (Q)	7%	21%	70%
French test	4,085	4% (Q)	13%	25%	57%

Source: Survey of Literacy Skills Used in Daily Activities, Statistics Canada, 1989.

Level 1 Canadians at this level have difficulty dealing with printed materials. They most likely identify themselves as people who cannot read.

Level 2 Canadians at this level can use printed materials only for limited purposes such as finding a familiar word in a simple text. They would likely recognize themselves as having difficulties with common reading materials.

Level 3 Canadians at this level can use reading materials in a variety of situations provided the material is simple, clearly laid out and the tasks involved are not too complex. While these people generally do not see themselves as having major reading difficulties, they tend to avoid situations requiring reading.

Level 4 Canadians at this level meet most everyday reading demands. This is a large and diverse group which exhibits a wide range of reading skills.

(Q) Users are cautioned that the sampling variability associated with this estimate is high.

Table 4 – Percentage distribution of adults born in Canada and of adults born outside Canada aged 16-69 by reading skill levels, Canada.

(**Note:** Excludes persons who reported having no skills in either of Canada's official languages)

	Population (thousands)	Reading Skills			
		Level 1	Level 2	Level 3	Level 4
Total*	17,705	5%	10%	22%	63%
Born in Canada	14,522	3%	9%	22%	66%
Immigrants	3,177	14% (Q)	14% (Q)	24%	48%

Source: *Survey of Literacy Skills Used in Daily Activities, Statistics Canada, 1989.*

Level 1 – Canadians at this level have difficulty dealing with printed materials. They most likely identify themselves as people who cannot read.

Level 2 – Canadians at this level can use printed materials only for limited purposes such as finding a familiar word in a simple text. They would likely recognize themselves as having difficulties with common reading materials.

Level 3 – Canadians at this level can use reading materials in a variety of situations provided the material is simple, clearly laid out and the tasks involved are not too complex. While these people generally do not see themselves as having major reading difficulties, they tend to avoid situations requiring reading.

Level 4 – Canadians at this level meet most everyday reading demands. This is a large and diverse group which exhibits a wide range of reading skills.

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* Total includes "Not Stated" country of origin

(Q) Users are cautioned that the sampling variability associated with this estimate is high.

Table 5 – Percentage distribution of adult Canadians aged 16-69 by sex showing reading skill levels. October 1989, Canada

(Note: Excludes persons who reported having no skills in either of Canada's official languages)

	Population (thousands)	Reading Skills			
		Level 1	Level 2	Level 3	Level 4
Canada	**17,705**	**5%**	**10%**	**22%**	**63%**
Males	8,812	5%	9%	23%	63%
Females	8,893	5%	10%	22%	63%

Source: Survey of Literacy Skills Used in Daily Activities, Statistics Canada.

Level 1 – Canadians at this level have difficulty dealing with printed materials. They most likely identify themselves as people who cannot read.

Level 2 – Canadians at this level can use printed materials only for limited purposes such as finding a familiar word in a simple text. They would likely recognize themselves as having difficulties with common reading materials.

Level 3 – Canadians at this level can use reading materials in a variety of situations provided the material is simple, clearly laid out and the tasks involved are not too complex. While these people generally do not see themselves as having major reading difficulties, they tend to avoid situations requiring reading.

Level 4 – Canadians at this level meet most everyday reading demands. This is a large and diverse group which exhibits a wide range of reading skills.

Table 6 – Percentage distribution of Canadian adults aged 16-69 by age groups showing reading skill level, Canada.

(Note: Excludes persons who reported having no skills in either of Canada's official languages)

	Population (thousands)	Reading Skills			
		Level 1	Level 2	Level 3	Level 4
Canada	**17,705**	**5%**	**10%**	**22%**	**63%**
16-24 years	3,469	1% (Q)	5%	23%	71%
25-34 years	4,554	2% (Q)	5%	17%	76%
35-54 years	6,484	4%	10%	23%	63%
55-69 years	3,198	15%	21%	29%	36%

Source: Survey of Literacy Skills Used in Daily Activities, Statistics Canada, 1989.

Level 1 – Canadians at this level have difficulty dealing with printed materials. They most likely identify themselves as people who cannot read.

Level 2 – Canadians at this level can use printed materials only for limited purposes such as finding a familiar word in a simple text. They would likely recognize themselves as having difficulties with common reading materials.

Level 3 – Canadians at this level can use reading materials in a variety of situations provided the material is simple, clearly laid out and the tasks involved are not too complex. While these people generally do not see themselves as having major reading difficulties, they tend to avoid situations requiring reading.

Level 4 – Canadians at this level meet most everyday reading demands. This is a large and diverse group which exhibits a wide range of reading skills.

(Q) Users are cautioned that the sampling variability associated with this estimate is high.

Table 7 – Percentage distribution of Canadian adults aged 16-69 by 1988 individual income from all sources showing reading skill level, Canada.

(Note: Excludes persons who reported having no skills in either of Canada's official languages)

	Population (thousands)	Reading Skills			
		Level 1	Level 2	Level 3	Level 4
Canada*	**17,705**	**5%**	**10%**	**22%**	**63%**
Less than $10,000 (including no income)	5,446	7%	12%	26%	54%
$10,000 – $19,999	3,678	5% (Q)	13%	23%	59%
$20,000 – $39,999	5,262	(1)	7% (Q)	22%	69%
$40,000 or more	2,435	(1)	(1)	13% (Q)	82%

Source: Survey of Literacy Skills Used in Daily Activities, Statistics Canada, 1989.

Level 1 – Canadians at this level have difficulty dealing with printed materials. They most likely identify themselves as people who cannot read.

Level 2 – Canadians at this level can use printed materials only for limited purposes such as finding a familiar word in a simple text. They would likely recognize themselves as having difficulties with common reading materials.

Level 3 – Canadians at this level can use reading materials in a variety of situations provided the material is simple, clearly laid out and the tasks involved are not too complex. While these people generally do not see themselves as having major reading difficulties, they tend to avoid situations requiring reading.

Level 4 – Canadians at this level meet most everyday reading demands. This is a large and diverse group which exhibits a wide range of reading skills.

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* Total includes "Not Stated" income.

(1) The sampling variability associated with this estimate is too high for the estimate to be released.

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SURVEY OF LITERACY SKILLS USED IN DAILY ACTIVITIES

Numeracy Skills

SURVEY OVERVIEW

On behalf of the National Literacy Secretariat, in October 1989 Statistics Canada conducted a survey designed to assess directly the functional reading, writing and numeracy skills of Canada's adult population.

The Survey of Literacy Skills Used in Daily Activities consisted of interviews administered to individuals in their homes and involved a series of tasks designed to test reading, writing and numeracy abilities with respect to activities commonly encountered in daily life in Canada. The assessment of everyday literacy skills was restricted to Canada's official languages. A representative sample of approximately 9,500 persons aged 16 to 69 attempted some or all of the tasks designed to measure their literacy skills. The sample was pre-selected from respondents to the monthly Labour Force Survey. Residents of the Yukon and the Northwest Territories, members of the Armed Forces, persons living on Indian reserves and inmates of institutions were not included in the sample. These exclusions account for approximately 3% of the Canadian population.

For the purpose of the survey, literacy was defined as:

- ✔ the information processing skills necessary to use the printed material commonly encountered at work, at home and in the community.

From this broad definition, skill levels were defined according to the abilities required to accomplish a variety of activities. Functional numeracy skills of Canadians were assessed through the use of commonly encountered documents and forms such as a swimming pool schedule (locating a particular time), a bank deposit slip (addition and subtraction), a catalogue order form (addition and multiplication). Several numeracy tasks were used and involved either a single operation or a series of numerical operations. Each operation was, however, scored individually. The numeracy skills measured reflect not only the ability to perform numeric operations but also the ability to achieve them within the context of everyday tasks requiring the use of documents and forms.

INTERNATIONAL LITERACY YEAR
1990
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The survey employed three questionnaires to profile the characteristics and the literacy skills of Canada's adult population:

- ✔ a set of "background" questions which gathered information on an individual's socio-demographic characteristics, on parental educational achievement as well as perceived literacy skills and needs;
- ✔ a "screening" questionnaire, involving a small number of simple tasks, designed to identify individuals with very limited literacy abilities (those who had very low literacy abilities were not asked to respond to the next questionnaire);
- ✔ a "main" questionnaire, comprising the majority of the literacy test, aimed at measuring specific reading, writing and numeracy abilities.

The attached data highlight the numeracy skills of adult Canadians. Data on the reading skills of Canadians were released May 30, 1990 while information on the writing skills will be available at a later date. A micro-data file of the survey results is also presently available. The micro-data file contains the socio-demographic characteristics collected from each respondent as well as the assigned individual skill levels for reading and numeracy and the individual scores for each task. The present micro-data file does not include as yet the assigned writing skill levels and the scores for the writing tasks but the file will be updated at no extra cost as soon as this information is available.

The main "outcome" of the literacy survey is a separate test score for each respondent for reading, writing and numeracy. To aid in the interpretation of these scores, respondents have been categorized into skill levels according to their performance on the test. In the case of numeracy, the levels are:

Level 1 - Canadians at this level have very limited numeracy abilities which enable them to, at most, locate and recognize numbers in isolation or in a short text.

Level 2 - Canadians at this level can deal with material requiring them to perform a simple numerical operation such as an addition and subtraction.

Level 3 - Canadians at this level can deal with material requiring them to perform simple sequences of numerical operations which enable them to meet most everyday demands.

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HIGHLIGHTS - NUMERACY SKILLS OF CANADIANS

- The majority (62%) of Canada's adult population (aged 16-69) have numeracy skills sufficient to handle the numerical tasks normally encountered in every day life. These skills enable them to deal with printed material requiring a simple sequence of numerical operations (level 3). Skills at this level are adequate to meet the numeracy requirements of most everyday documents and forms (see table 1).

- Twenty four percent (4.2 million) of Canadian adults do not possess the necessary skills to meet most everyday numeracy requirements but can deal with commonly encountered documents and forms requiring them to perform a simple numerical operation such as an addition or a subtraction (level 2).

- An additional 14% (2.4 million) of Canadian adults have limited numeracy skills (level 1). These skills enable them to, at most, locate and recognize numbers in isolation or in a short text. Their skills do not permit them to perform numerical operations consistently.

- The numeracy skills of an estimated 5% of the total Canadian adult population (some 820,000 adults) were not assessed and hence are not included in this distribution. Of these, approximately 320,000 adults reported having no skills in either of Canada's official languages and, therefore, did not attempt the test. A further 500,000 adults were not asked to take the main test, which contained the numeracy items, due to their limited reading skills in English or French. The reading skills of this subgroup would likely limit their ability to understand the information needed to carry out the numeracy tasks.

Numeracy skills closely linked to level of schooling

- As with reading skills, numeracy skills are closely linked to the level of schooling (see table 2).

- Almost half (46%) of Canada's adults who reported having either no schooling, or elementary schooling only, had very limited numeracy skills (level 1 abilities which enable them to, at most, locate and recognize numbers).

- Sixty four percent of Canadians whose highest level of schooling is secondary school completion were categorized at numeracy level 3 (abilities enabling them to meet most daily requirements). In comparison, only 47% of those who started but did not complete their secondary schooling were classified at that level.

- Eighty three percent of adult Canadians who attended university were assessed as having skills enabling them to meet most everyday numeracy demands (level 3).

Functional numeracy skills closely associated with functional reading skills

- The reading skills of Canadians (described in a report released on May 30) were rated from level 1 (very limited) to level 4 (sufficient to meet most everyday reading requirements). Eighty two percent of Canadians with reading skills sufficient to meet most everyday demands (reading level 4) also have numeracy skills sufficient to meet these demands (numeracy level 3).

- Canadian adults with limited reading skills predominantly have weak numeracy skills (see table 3). Ninety seven percent of Canadians who have difficulty dealing with printed material (reading level 1) have numeracy skills that enable them to, at most, locate numbers in isolation or in a short text (numeracy level 1). Sixty eight percent of level 2 readers (those with limited skills such as finding a familiar word in a simple text) have only level 1 numeracy skills.

- Only 1 out of 3 Canadians with reading skills at level 3 (those who can use reading material provided it is simple, clearly laid out and the task involved is not too complex) have numeracy skills sufficient to meet most everyday demands (numeracy level 3).

- Close to 1 in 5 adults born outside Canada have very limited everyday numeracy skills. Differences in literacy performance levels between immigrants and Canadian born respondents (see table 4) can be attributed to a number of factors including level of schooling, mother tongue and familiarity with English or French documents. Sixty three percent of adults born in Canada were categorized at level 3 (level which enables them to meet most everyday demands) compared to 57% for those born outside Canada.

- The more recent immigrants exhibited lower levels of numeracy proficiency than those who had been in Canada longer. For those who had migrated to Canada during the past decade (1980-89), 34% have skills sufficient to meet everyday numeracy demands (level 3) compared to 58% for the period 1970-79.

Functional numeracy skills of Canadians highest in West

- Ontario and the four western provinces have over 60% of their adult population with numeracy skills that enable them to meet most everyday demands (level 3). The highest percentages at that level were observed in Alberta (72%) and British Columbia (70%).

- The highest percentages of Canadians with limited functional numeracy skills (level 1) are found in the Atlantic provinces (25%). Quebec also had a percentage in this category (19%) which is above the national average (14%) (see table 1).

Highest functional numeracy skills found among respondents 25-34 years of age

- Numeracy skills were strongest among adults in the age group 25-34 with 69% of them at level 3 (see table 5).

- Fourteen percent of Canada's young adults (16-24) have very limited numeracy abilities (level 1) and a further 30% of them have level 2 skills allowing them to deal with material requiring them to perform a simple numerical operation. Less exposure to everyday printed material by young adults may, in part, explain differences between this age group and the 25-34 year olds.

- Forty seven percent of Canadians aged 55-69 have numeracy skills sufficient to meet everyday numeracy demands.

Table 1 - Percentage distribution of persons aged 16-69 by numeracy skill levels, Canada and provinces.

(Note: Excludes persons who reported having no skills in either of Canada's official languages and persons whose reading skills were too limited to undertake the main test items)

	Population (thousands)	Numeracy skills		
		Level 1	Level 2	Level 3
Canada	**17,206**	**14%**	**24%**	**62%**
Atlantic	1,497	25%	26%	52%
Newfoundland	369	29%	26%	45%
Prince Edward Island	79	(1)	(1)	(1)
Nova Scotia	581	21%	23%	56%
New Brunswick	468	22%	24%	54%
Quebec	4,577	19%	27%	54%
Ontario	6,228	11%	25%	64%
Prairies	2,888	10%	22%	68%
Manitoba	678	13% (Q)	26%	61%
Saskatchewan	620	9% (Q)	26%	66%
Alberta	1,589	8% (Q)	20%	72%
British Columbia	2,015	9%	22%	69%

Source: *Survey of Literacy Skills Used in Daily Activities, Statistics Canada, 1989.*

Level 1 - Canadians at this level have very limited numeracy abilities which enable them to, at most, locate and recognize numbers in isolation or in short texts.

Level 2 - Canadians at this level can deal with material requiring them to perform a simple numerical operation such as an addition or subtraction.

Level 3 - Canadians at this level can deal with material requiring them to perform simple sequences of numerical operations which enable them to meet most everyday demands.

(1) The sampling variability associated with this estimate is too high for the estimate to be released.

(Q) Users are cautioned that the sampling variability associated with this estimate is high.

Table 2 - Percentage distribution of Canadian adults aged 16-69 by highest level of schooling showing numeracy skill level, Canada.

(Note: Excludes persons who reported having no skills in either of Canada's official languages and persons whose reading skills were too limited to undertake the main test items)

	Population (thousands)	Numeracy skills		
		Level 1	Level 2	Level 3
Canada *	**17,206**	**14%**	**24%**	**62%**
No schooling or elementary only	1,518	46%	32% (Q)	22%(Q)
Some secondary	4,363	20%	33%	47%
Secondary completed	4,123	10% (Q)	26%	64%
Trade school	1,095	(1)	23% (Q)	65%
Community College	2,446	(1)	19%	76%
University	3,451	(1)	14% (Q)	83%

Source: *Survey of Literacy Skills Used in Daily Activities, Statistics Canada, 1989.*

Level 1 - Canadians at this level have very limited numeracy abilities which enable them to, at most, locate and recognize numbers in isolation or in short texts.

Level 2 - Canadians at this level can deal with material requiring them to perform a simple numerical operation such as an addition or subtraction.

Level 3 - Canadians at this level can deal with material requiring them to perform simple sequences of numerical operations which enable them to meet most everyday demands.

* Total includes "Not Stated" level of schooling.

(Q) Users are cautioned that the sampling variability associated with this estimate is high.

(1) The sampling variability associated with this estimate is too high for the estimate to be released.

Table 3 - Percentage distribution of Canada's adult population aged 16-69 by reading skill levels showing the numeracy skill levels, Canada.

(Note: Excludes persons who reported having no skills in either of Canada's official languages and persons whose reading skills were too limited to undertake the main test items)

	Population (thousands)	Numeracy skills		
Reading skills		**Level 1**	**Level 2**	**Level 3**
Level 1	364	97% (Q)	(1)	(1)
Level 2	1,698	68%	28% (Q)	(1)
Level 3	3,980	18%	48%	34%
Level 4	11,163	1% (Q)	16%	82%

Source: *Survey of Literacy Skills Used in Daily Activities, Statistics Canada, 1989.*

Numeracy

Level 1 - Canadians at this level have very limited numeracy abilities which enable them to, at most, locate and recognize numbers in isolation or in short texts.

Level 2 - Canadians at this level can deal with material requiring them to perform a simple numerical operation such as an addition or subtraction.

Level 3 - Canadians at this level can deal with material requiring them to perform simple sequences of numerical operations which enable them to meet most everyday demands.

Reading

Level 1 - Canadians at this level have difficulty dealing with printed materials. They most likely identify themselves as people who cannot read.

Level 2 - Canadians at this level can use printed materials only for limited purposes such as finding a familiar word in a simple text. They would likely recognize themselves as having difficulties with common reading materials.

Level 3 - Canadians at this level can use reading materials in a variety of situations provided the material is simple, clearly laid out and the tasks involved are not too complex. While these people generally do not see themselves as having major reading difficulties, they tend to avoid situations requiring reading.

Level 4 - Canadians at this level meet most everyday reading demands. This is a large and diverse group which exhibits a wide range of reading skills.

(Q) Users are cautioned that the sampling variability associated with this estimate is high.

(1) The sampling variability associated with this estimate is too high for the estimate to be released.

Table 4 - Percentage distribution of adults born in Canada and of adults born outside Canada aged 16-69 by numeracy skill levels, Canada.

(Note: Excludes persons who reported having no skills in either of Canada's official languages and persons whose reading skills were too limited to undertake the main test items)

	Population (thousands)	Numeracy skills		
		Level 1	Level 2	Level 3
Canada *	17,206	14%	24%	62%
Born in Canada	14,333	13%	24%	63%
Born outside Canada	2,867	17% (Q)	26% (Q)	57%

Source: *Survey of Literacy Skills Used in Daily Activities, Statistics Canada, 1989.*

Level 1 - Canadians at this level have very limited numeracy abilities which enable them to, at most, locate and recognize numbers in isolation or in short texts.

Level 2 - Canadians at this level can deal with material requiring them to perform a simple numerical operation such as an addition or subtraction.

Level 3 - Canadians at this level can deal with material requiring them to perform simple sequences of numerical operations which enable them to meet most everyday demands.

* Total includes "Not Stated" country of birth.

(Q) Users are cautioned that the sampling variability associated with this estimate is high.

Table 5 - Percentage distribution of Canadian adults aged 16-69 by age group showing numeracy skill levels, Canada.

(Note: Excludes persons who reported having no skills in either of Canada's official languages and persons whose reading skills were too limited to undertake the main test items)

	Population (thousands)	Numeracy skills		
		Level 1	Level 2	Level 3
Canada	**17,206**	**14%**	**25%**	**62%**
16 - 24 years	3,462	14%	30%	56%
25 - 34 years	4,511	9%	22%	69%
35 - 54 years	6,307	13%	21%	66%
55 - 69 years	2,926	24%	29%	47%

Source: *Survey of Literacy Skills Used in Daily Activities, Statistics Canada, 1989.*

Level 1 - Canadians at this level have very limited numeracy abilities which enable them to, at most, locate and recognize numbers in isolation or in short texts.

Level 2 - Canadians at this level can deal with material requiring them to perform a simple numerical operation such as an addition or subtraction.

Level 3 - Canadians at this level can deal with material requiring them to perform simple sequences of numerical operations which enable them to meet most everyday demands.

SURVEY OF LITERACY SKILLS USED IN DAILY ACTIVITIES

Writing Skills

SURVEY OVERVIEW

On behalf of the National Literacy Secretariat, in October 1989 Statistics Canada conducted a survey designed to directly assess the functional reading, writing and numeracy skills of Canada's adult population.

The Survey of Literacy Skills Used in Daily Activities consisted of interviews administered to individuals in their homes and involved a series of tasks designed to test reading, writing and numeracy abilities with respect to activities commonly encountered in daily life in Canada. The assessment of everyday literacy skills was restricted to Canada's official languages. A representative sample of approximately 9,500 persons aged 16 to 69 attempted some or all of the tasks designed to measure their literacy skills.

For the purpose of the survey, literacy was defined as:

> The information processing skills necessary to use the printed material commonly encounterd at work, at home and in the community.

The survey employed three questionnaires:

- a set of "background" questions which gathered information on an individual's socio-demographic characteristics as well as perceived literacy skills and needs;
- a "screening" questionnaire, involving a small number of simple tasks, designed to identify individuals with very limited literacy abilities (those who had very low abilities were not asked to respond to the next questionnaire);
- a "main" questionnaire, comprising the majority of the literacy test, aimed at measuring specific reading, writing and numeracy abilities.

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Functional writing skills of Canadians were assessed through the use of two writing tasks. One involved the writing of a simple message to a household member asking them to turn on the oven. This task required that three specific pieces of information be included, namely, turn the oven on, to a temperature of 450 °F (230 °C) at 5:30 p.m.. The second task required respondents to write a letter to a company requesting the repair of an appliance still under warranty. The following information was to be included: nature of the problem, sender's address, date and place of purchase.

As the measurement of writing skills in a household survey context is experimental, readers are advised to recognize the following points in the interpretation and use made of the results. While writing may not be an everyday activity for many Canadians, the two tasks chosen do reflect typical situations in which writing would be required. In both cases, respondents were asked to read instructions describing the situation and then to write text conforming to specific content requirements. As noted above, the emphasis in this assessment was on functional writing. As a result, the tasks were scored in terms of information content only. Spelling, grammar and style were not considered.

In a survey context, writing tasks are particularly demanding and time-consuming adding considerably to respondent burden and fatigue. Thus, although it was felt important to report on the writing skills of Canadians, only two measurement tasks could be included in the national survey.

For the reading and numeracy components (released in the spring and summer of 1990), results were presented in a generalized manner using skill levels. The number of items included to measure writing skills restricted the ability to make this type of generalization for the writing component. Rather, results have been summarized to reflect performance on the individual writing tasks.

- Eighty-eight percent (14 million) of Canadian adults were able to write a simple message (note to turn on the oven) containing all the specifically requested information.

- Sixty-two percent (9.9 million) of Canada's adult population (aged 16-69) were able to write a letter requesting the repair of an appliance. The letters written by 47% included all the information specified by the manufacturer while those written by the other 15% partially met the specified content requirements. The letters written by this latter group included enough information such that the appliance would probably be repaired and returned to them but some of the information requested by the manufacturer was omitted.

- The writing skills of an estimated 11% of the Canadian adult population (some 2 million adults) are not included in these results. Of these:

  - approximately 320,000 adults reported having no skills in either of Canada's official languages and therefore, did not attempt the test.

  - 500,000 adults were not asked to take the main test, which contained the writing items, due to their limited reading skills in English or French.

  - approximately 1.2 million adults refused to complete one or both of the writing tasks.

Those interested in doing further analysis of the writing results may purchase the micro-data file for the survey which is currently available. For more detailed information, contact:

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